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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,278	08/27/2001	Stephen S. Ohr	H0001828 (4960)	4558

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EXAMINER

PATEL, ISHWARBHAI B

ART UNIT PAPER NUMBER

2827

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,278

Applicant(s)

OHR, STEPHEN S.

Examiner

Ishwar (I. B.) Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 18-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 18-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-17, drawn to a layered material for use in an electronic component, classified in class 174, subclass 260.
 - II. Claims 18-24, drawn to a method of producing a layered material for an electronic component, classified in class 29, subclass 846.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process. The steps such as contacting the bare active component layer with a reactive solution or removing any remaining photo-resist material from the active material layer is not required in the product.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and the

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search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with David Zoetewey (45,258) on February 26, 2002 a provisional election was made without traverse to prosecute the invention of a method of producing a layered material for an electronic component, claims 18-24. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-17 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Oath/Declaration

5. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: The oath is not dated by the inventor.

Drawings

6. The drawings are objected to because the figures are improperly cross hatched. The cross hatching patterns should be selected from those shown on page 600-81 of the MPEP based on the material of the part. See also 37 CFR 1.84(h)(3) and MPEP 608.02.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tobben et al., US Patent No. 6,103,456, hereafter Tobben.

Regarding claim 18, Tobben discloses a method of providing active material layer; forming an adhesion promotion layer; coating and patterning a portion of photoresist material and exposing the contact area (conductive layer 22' is exposed by patterning photoresist material 40/45 and removing the dielectric insulation material 23',

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see figure 2D, column 11, line 35 to column 12, line 47), except explicitly disclosing the dielectric material removed by wet etching using reactive solution. However, such reactive solution etching is known in the art and can be used depending upon the material to be etched to have the desired results. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the substrate of Tobben with wet etching the dielectric using reactive solution, apparently in order to have the controlled etching suitable for the specific adhesive material.

Regarding claim 19, Tobben further discloses a conductive material which can be a signal layer ((conductive layer 22', see figure 2D).

Regarding claim 20, though Tobben does not disclose how the adhesion layer is provided, both spinning or printing is known in the art and can be used; which ever is convenient and economically feasible, depending upon the specific situation (Tobben disclose dielectric spacer material may be applied by spin-on technique, column 14, line 35-40). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the substrate of Tobben with the adhesion layer with spinning or printing, apparently in order to have cost effective method for the specific situation.

Regarding claim 21, Tobben further discloses photoresist mask (patterning photoresist 25', see figure 2A-2D, column 11, line 30-50).

Regarding claim 22 and 23, though Tobben does not explicitly disclose use of acid solution for etching, it depend upon the material to be etched and further the use of sulfuric acid is known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the substrate of Tobben with acid and sulfuric acid in particular, as etchant for etching the adhesion layer, for better etching and finish of the product.

Regarding claim 24, though Tobben does not disclose any electrical testing, electric testing of circuit at various stages of the production is known in art to continue processing known good article. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to electrical test the conductive material of Tobben in order to further process the known good material to save labor and material.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bhatt et al., Krugger et al., Tsunashima, Croson, Kawahito et al., Hall, Ruggiero et al., Abernathey et al., Russell et al., and Japp et al., discloses the methods of producing circuits with resistor, capacitor and signal layer, similar to applicant's claim invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar B Patel whose telephone number is (703) 305 2617. The examiner can normally be reached on M-F (6:30 - 4) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L Talbott can be reached on (703) 308 9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3431 for regular communications and (703) 305 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

ibp
November 11, 2002


ALBERT W. PALADINI
PRIMARY EXAMINER